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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TSOY, ELENA

ART UNIT	PAPER NUMBER
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1762

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DATE MAILED: 06/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/980,182

Applicant(s)

GROS, GEORG

Examiner

Elena Tsoy

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 16-30 is/are pending in the application.
- 4a) Of the above claim(s) 16-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9 6) ☐ Other _____

Response to Amendment

Amendment filed on May 16, 2003 has been entered. Claims 16-30 are pending in the application. Claims 16-25 are withdrawn from consideration as directed to a non-elected invention.

Election/Restrictions

During a telephone conversation with James R. Crawford on December 6, 2002 a provisional election was made with traverse to prosecute the invention of Group II, claims 26-30. Applicant was advised that affirmation of this election must have been made by applicant in replying to the Office action. However, Applicant has not affirmed the election with traverse of Claims 26-30 in Paper No. 8. Applicant is advised that the reply to this requirement to be complete **must** include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicants traverse the unity of invention rejection. The traversal is on the ground(s) that no such requirement was required during the International Phase of the application, and would not be undue burden on the Examiner to perform a search of all claims. This is not found persuasive because restriction is required under 35 U.S.C. 121 and 372 since the application contains the inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1 and the search and examination of inventions of Groups I and II would place serious burden on the Examiner.

The requirement is still deemed proper and is therefore made FINAL.

Specification

An abstract on a separate sheet has been entered.

Claim Objections

1. Claims 26, 29 stand objected to because of the following informalities:

Claim 26 should incorporate language of claim 16, because claim 16 is of non-selected Group I.

Claim 29, lines 1-2, "said coating and said curing are effected sequentially in one step" is an awkward expression since coating and curing represent **two** steps. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Rejection of claims 26-30 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention because of the terms "firm", "hard", "tough" has been withdrawn.

Rejection of claim 16 because of the term "low-molecular liquid compound" and improper Markush group has been withdrawn.

Rejection of claim 27 has been withdrawn.

Rejection of claim 29 has been withdrawn.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Rejection of claims 26, 27, 29 under 35 U.S.C. 102(e) as anticipated by Kulkarni (US 6,054,514) has been withdrawn.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 26, 27, 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kulkarni (US 6,054,514).

Kulkarni discloses a method of applying an anticorrosive layer to a metallic substrate comprising applying to the surface of the metallic substrate a coating mixture, said coating mixture comprising a polymer of acrylics (a polymeric organic binder), a monomer of acrylics (a low-molecular liquid compound) and oligomer of acrylics (See column 1, lines 11-19; column 10, lines 9-16); iron oxides or aluminum tripolyphosphate (conductive inorganic) (See column 8,

lines 21-22; column 10, lines 43-44), and curing the applied coating by heat, radiation or simply by air drying to form the corrosion-resistant layer (See column 5, lines 13-14).

Kulkarni fails to teach that the coating mixture comprises at least 10 wt % of the conductive inorganic.

It is well known in the art that properties of a coating composition depend on concentration of components. In other words, concentration limitations are result-effective parameters in a coating process.

It is held that it is not inventive to discover the optimum or workable ranges of result-effective variables by routine experimentation. In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977). See also In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum values of the relevant concentration parameters of a conductive inorganic (including at least 10 wt % of claim 16) in a method of Kulkarni through routine experimentation in the absence of a showing of criticality.

As to claimed properties, the corrosion-resistant layer in Kulkarni would have claimed properties *inherently*, i.e. it is firm, hard, tough and slidable (i.e. smooth, see specification, page 4) since the layer is produced by a method identical or substantially identical to that of claimed invention. It is held that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, *claimed properties or functions are presumed to be inherent*. See MPEP 2111.02, 2112.01. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the

same, the applicant has the burden of showing that they are not." In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

As to claim 27, the coating mixture is applied to obtain a layer thickness of *at least* 0.1 mils (2.54 microns) (See column 5, lines 9-11). Thus, a layer thickness of Kulkarni is within claimed broad thickness range of 2-8 microns, as well as within a preferred range of 3-7 microns.

As to claim 29, the coating may be cured by radiation right after applying to the metallic surface (See column 5, lines 13-14). Thermal post-curing is not addressed because it is *optional*.

8. **Claims 28, 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kulkarni (US 6,054,514) in view of Stevens et al (US 5,712,034).

As to a metal substrate being flexible steel sheet, Kulkarni, as applied above, further teaches that a metal substrate is cold rolled steel Q-panel (a flexible steel sheet) (See column 5, lines 53-54).

As to pre-treatment of a metal substrate, Kulkarni further teaches that it is well known in the art to provide active corrosion inhibition of a metallic substrate using organic coatings or coatings such as zinc rich coatings and chromates, wherein the zinc rich coatings provides cathodic protection, while the chromates and phosphates passivate the metallic substrate (See column 1, lines 23-34).

Kulkarni fails to teach that both organic coatings and zinc rich coatings or chromates can be used for providing the metallic substrate with active corrosion inhibition.

Stevens et al teach that organic coatings can be applied over zinc rich coatings to protect a steel substrate against corrosion (See column 3, lines 30-32, 44-48). Also, common sense

dictates that the use of both coatings, i.e. organic coatings over zinc rich coatings or chromates, phosphates, would provide improved protection.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have pretreated a steel substrate of Kulkarni with zinc rich coatings or chromates before applying an organic coating, as taught by Stevens et al, with the expectation of providing the desired improved corrosion protection.

9. The prior art made of record and not relied upon is considered pertinent to applicant disclosure.

Martins et al (US 4,626,283) teach that a cold rolled steel Q-panel is flexible steel sheet (See column 15, lines 31-33).

Response to Arguments

10. Applicants' arguments filed May 16, 2003 have been fully considered but they are not persuasive.

(A) Applicants argue that Kulkarni does not anticipate claimed invention because a paint composition of Kulkarni may form electroconductive coatings by its content of polyaniline, but not by addition of inorganic electroconductive particles such as black magnetic Fe_3O_4 .

The Examiner respectfully disagrees with this argument because claim 16 does **not** recite that particles should be electroconductive that include black magnetic Fe_3O_4 . Claim 16 merely recites that a coating mixture **comprises** conductive particles such as iron oxides and phosphates of aluminum, i.e. the same particles as in Kulkarni. Moreover, the specification as filed discloses that iron oxides and phosphates of aluminum are important inorganic pigments in a coating composition **not** black magnetic Fe_3O_4 (See page 4, paragraph 4). Therefore, Kulkarni

comprises all elements recited in the claims 16 and 26 except that the inorganic pigments are used in an amount of at least 10 wt % which can be easily determined by routine experimentation.

(B) In response to applicant's argument that Stevens et al are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Stevens et al are reasonably pertinent to the particular problem with which the applicant was concerned.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (703) 605-1171. The examiner can normally be reached on 9:00-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

ET

Elena Tsoy
Examiner
Art Unit 1762

June 16, 2003


SHRIVE P. BECK
SUPERVISOR, PATENT EXAMINER
ART UNIT 1700